

Message

From: Cascio, Wayne [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A1BD931CA2F84EA8AC2F4C44538F3589-CASCIO, WAYNE]
Sent: 1/28/2021 12:54:51 AM
To: Orme-Zavaleta, Jennifer [Orme-Zavaleta.Jennifer@epa.gov]
Subject: RE: Rapid and Sensitive Detection of SARS-CoV-2

Jennifer – Thanks for the link to this product. I've downloaded the document and will review. Among the many priorities of President Biden one is to expand the quality and availability of rapid, at-home testing technologies to identify SARS-CoV-2 infection. So, we're likely to see many of such products appear in the coming months. Depending on the direction this pandemic takes such technologies could become very important to keep our workforce active in the labs. Wayne

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From: Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>
Sent: Monday, January 25, 2021 11:33 AM
To: Cascio, Wayne <Cascio.Wayne@epa.gov>
Subject: FW: Rapid and Sensitive Detection of SARS-CoV-2

fyi

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From: The Scientist <newsletters@the-scientist.com>
Sent: Monday, January 25, 2021 11:30 AM
To: Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>
Subject: Rapid and Sensitive Detection of SARS-CoV-2

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Rapid and Sensitive Detection of SARS-CoV-2

Promptly detecting COVID-19 is paramount to administering timely treatment and preventing the spread of the disease. Researchers often use reverse transcription-polymerase chain reaction (RT-PCR) to rapidly detect COVID-19 cases by using primers to amplify specific regions of the SARS-CoV-2 virus. However, this approach lacks the sensitivity to detect low viral loads and does not produce amplicons long enough to identify mutations for tracking viral spread and evolution over time.

Researchers have successfully used nucleic acid hybridization capture-based assays for rapidly detecting and tracking other pathogens such as Ebola virus.

Leveraging this technology, researchers developed a large panel of capture probes covering the full-length SARS-CoV-2 genome for rapid and sensitive COVID-19 detection.

Download this case study from Twist Bioscience to learn about

- A newly developed capture panel for rapid, sensitive SARS-CoV-2 detection
- How researchers developed a capture panel with 99.9% SARS-CoV-2 genome coverage
- The sensitivity required to detect as few as 10 copies of viral nucleic acid
- How to detect mutations in the SARS-CoV-2 genome to track viral spread and evolution over time



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